

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Official Action dated 9 March 2006. Responsive to the Office Action, Claims 1 – 8 have been cancelled and new Claims 9 – 12 inserted for further prosecution. It is believed that with such insertion of new Claims 9 – 12, there is a further clarification of their recitations.

In the Official Action, the Examiner rejected Claims 1 – 8 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In response to this rejection, Claims 1 – 8 have been cancelled and new Claims 9 – 12 have been inserted which particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

In the Office Action, the Examiner rejected Claims 1 – 8 under 35 U.S.C. § 103(a) as being unpatentable over the Ueno et al. reference in view of the Zhang et al. reference. The Examiner acknowledged in this regard that the Ueno et al. reference fails to disclose a weed compost or a cattle dung compost, but cited Zhang et al. for disclosing as much in its production of methane. The Examiner then concluded that it would have been obvious to one of ordinary skill in the art to have incorporated further sources of biomass in the process of Ueno et al. to arrive at the claimed method.

As newly inserted Independent Claim 9 more clearly recites, Applicant's method of producing hydrogen includes among its method steps the formation of "a seeding solution having a spore bacteria." As further defined by Claim 10, the seeding solution is formed by "placing a weed compost or a cattle dung compost into a fermentor," and fermenting three hours at a temperature of approximately 80° - 90° Celsius. This fermented product is then mixed with reverse osmosis water and stirred with the seeding solution being formed upon settling of the mixture.

The full combination of these and other method steps now more clearly recited by Applicant's pending claims is nowhere disclosed by the cited references. As the Examiner readily acknowledged, the primarily-cited Ueno et al. reference fails to disclose weed or cattle dung compost. Even beyond this, though, the Ueno et al. reference nowhere discloses or suggests forming a seeding solution by the method steps as now claimed. The Ueno et al. reference discloses a sludge compost, which is not only admittedly different from weed or cattle dung compost, but also does not undergo the same treatments as now claimed in the present invention.

The Examiner states that the Ueno et al. reference not only discloses the claimed method steps but also nutrients used, and specifically cites Example 1 of the reference. However, such cannot be considered equivalent to Applicant's treatment or "forming a seeding solution." During Applicant's formation of a

seeding solution, weed compost or cattle dung compost is fermented for three hours at a temperature of approximately 80° - 90° Celsius. Whereas, Ueno et al. nowhere discloses or suggests fermenting for a prescribed time at this prescribed temperature.¹ Furthermore, the Examiner states that the nutrients used in Example 1 render obvious those as recited in new Claim 12. However, not only are the nutrients different but the claimed temperature differs drastically from that which is prescribed by Applicant. Upon close examination of Example 1, the Ueno et al. reference specifically states: "... the resulting mixture was maintained at 60° Celsius," whereas Applicant reacts the nutrients along with shattered waste and the seeding solution at a temperature of approximately 35° – 45° Celsius.

Therefore, the Ueno et al. reference not only fails to disclose or suggest a treatment of weed compost or cattle dung compost to form "a seeding solution" but also the prescribed ranges of nutrients and the processing of those nutrients. Such drastic and deficient teachings of the Ueno et al. reference cannot be summarily dismissed as obvious.

Given such deficient teachings of the Ueno et al. reference, the secondarily-cited Zhang et al. reference is found to be quite ineffectual to the present patentability analysis. Zhang et al. was merely cited for disclosing the use of biomass for the production of methane and furthermore, as the Examiner readily admits, although Zhang et al. discloses the presence of ionic materials, those


¹ Note in this regard that Ueno et al. discloses method steps with a sludge compost, whereas Applicant utilizes weed/cattle dung compost to form a seeding solution. Without utilizing weed/cattle dung compost, Ueno et al. inherently does not teach forming a seeding solution.

materials are 1) not specifically added and 2) not detailed for any reasonable correlation to Applicant's prescribed amounts. Again, without disclosing the specific added nutrients (in specified amounts) as Applicant teaches, Zhang et al. cannot make obvious the claimed method. Thus, the reference nowhere relates otherwise to any other deficiencies of the Ueno et al. reference.

It is respectfully submitted, therefore, that the cited Ueno et al. and Zhang et al. references, even when considered together, fail to disclose the unique combination of method steps now more clearly recited by Applicant's pending claims for the purposes and objectives disclosed in the subject Patent Application. In fact, the references are quite deficient in disclosing not only the method steps but also the prescribed nutrients and their amounts as now claimed in the subject Patent Application.

It is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,
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